

Notice of Allowability

Application No.

10/724,374

Examiner

Rip A. Lee

Applicant(s)

BAE ET AL.

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to June 17, 2005.
2. ☒ The allowed claim(s) is/are 5, 8-13 and 22-24.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with James L. Lewis on June 27, 2005.

Cancel claims 1-4 and 14-21.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: Claims 5, 8-13, and 22-24 are allowed over the closest references, Wehner *et al.* (U.S. 6,084,013) and Isao *et al.* (U.S. 4,659,764).

The present invention is drawn to a plastic composition comprising polyvinyl chloride, from 15 to 150 pw of aluminum hydroxide per 100 pw of polyvinyl chloride, and an effective amount of an alkali metal perchlorate.

Wehner *et al.* discloses a stabilizer combination comprising least one compound selected from the group consisting of aluminum hydroxides in an amount of 0.05-10 pw, and the composition further contains a perchlorate compound such as an alkali metal perchlorates (NaClO_4) used in an amount of 0.001-5 pw based on 100 parts of PVC resin and plasticizer. Plasticizers include dialkyl phthalates and trialkyl mellitates. Metal soaps are also incorporated into the composition, and preference is given to calcium, magnesium, and zinc salts of C_{7-18} carboxylic acids. The patent teaches a considerably lower amount of aluminum hydroxide flame retardant in conjunction with perchlorate.

Isao *et al.* teaches a composition comprised of polyvinyl chloride, plasticizer, stabilizer, a C_5 - C_8 metal carboxylate mixture wherein the metals are Ba and Zn in a 1:2 to 5:1 ratio, and at least one compound selected from the group consisting of magnesium perchlorate wherein the amount of magnesium compound is 0.1-5 parts by weight based on 100 parts by weight of polyvinyl chloride. Use of a small amount of inorganic compound such as aluminum hydroxide is contemplated, and apparently, this is a flame retardant amount since $\text{Al}(\text{OH})_3$ has flame retardant properties. The plasticizer is dialkyl phthalate or trialkyl mellitate. The reference does not teach the claimed range of aluminum hydroxide, and it teaches specific use of alkaline earth perchlorates rather than alkali metal perchlorates.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 1713


The prior art made of record but not relied upon is considered pertinent to the Applicant's disclosure. The references in the accompanying PTO-892 have been cited to show the state of the art with respect to stabilized PVC compositions. These compositions contain one of the additives indicated in the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

ral

June 27, 2005


DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700